CHAPTER 9. PROVING AND VALIDATION TESTS

SECTION 4. PLANNING THE PROVING TEST

1603. APPLICANT'S PLAN FOR PROVING TESTS. An applicant must submit a proving test plan at least 10 days in advance of any in-flight demonstration (including training or ferry flights) that the applicant desires to have credited toward the proving test requirements. Any subsequent change to the plan must be coordinated with the test team. The plan must contain at least the following information:

- Identification of the company coordinator who will serve as the primary proving test spokesperson
- A detailed schedule of all proposed flights, including dates, times, and airports to be used (The schedule should clearly differentiate which flights will be conducted for training, ferry, or representative en route flights.)

NOTE: It is FAA policy for 50 percent of the scheduled proving flight hours to consist of representative en route flights over routes and into airports which the applicant intends to serve.

- A list of names and positions of the flight crewmembers who will be participating on each flight
- A list of names, titles, and company affiliations of non-crewmember personnel whom the applicant intends to have on board each flight
- Any other information that the test team determines is necessary to properly plan and conduct the proving flight

1605. APPLICANT'S PLAN FOR REDUCED PROVING TEST HOURS. If the applicant requests a deviation to the FAR-required number of proving test hours, the request must be made by letter. The letter must transmit the applicant's plan, which is described in the previous paragraph, and it must include the additional information specified in section 7 of this chapter.

1607. FAA PLANNING FOR PROVING TESTS.

A. Early Planning. Development and implementation of the FAA's plan for observation and evaluation is of crucial importance to any proving test. The FAA inspection team should begin planning in phase one of the proving test process. FAA planning should be completed as soon as possible after the inspection team receives the applicant's plan.

B. Initial Review. The inspection team must review the applicant's plan initially to determine if the appropriate documentation has been submitted. The plan must contain a realistic proposal that will permit the FAA to adequately observe and evaluate the applicant's overall abilities. This review should be accomplished within 5 working days after receipt of the applicant's plan. Based on the results of this initial review, one of the following actions must be taken:

(1) Accept the Plan. If the applicant's plan is feasible and satisfies regulatory and FAA policy requirements, the inspection team leader should verbally notify the applicant. Any changes should be negotiated and mutually agreed upon at this time. If the applicant's plan includes a request for deviation from the required number of proving test hours, formal acceptance by letter must follow. This letter must include a statement verifying that a deviation to the appropriate FAR is granted.

(2) Return the Plan with Explanation. If the applicant's plan lacks appropriate documentation or does not satisfy regulatory or FAA policy requirements, it must be returned to the applicant as soon as possible. A letter that briefly describes the principal reasons for the plan's return should accompany the plan.

NOTE: When the inspection team denies a request for deviation, the denial must be done by letter. This letter should contain any suggestions the team may have that would make the plan acceptable.

1609. WITHDRAWN--CHG 8.

1611. OTHER PROVING TEST PARTICIPANTS. FAR 121.163(e) and 135.145(b) limit the individuals who can participate in the in-flight portion of the proving tests to those who are required by the applicant to conduct the tests and to those "designated by the Administrator."

A. U.S. Government Participants. During the demonstration phase, an applicant exercises all aspects of its operation, such as flight control, communications, flight planning, and line maintenance. It is essential that this phase be devoid of distractions created by non-essential personnel. The test team may authorize the participation of any government or contractor employee, including those from other agencies. These personnel should be limited to those having specific tasks to perform and to inspectors accomplishing on-the-job training.

B. The Applicant's Participants. Many situations occur during proving flights that require decisions by company supervisory personnel to correct deficiencies observed during the flights. Therefore, the applicant's participants should include the following personnel:

- Initial cadre check airmen
- Directors of operations and maintenance (if applicable)
- Those supervisory personnel needed to act on behalf of the company if actions are required to resolve discrepancies

C. Other Personnel. Other personnel, such as representatives of engine and aircraft manufacturers, may be authorized to participate if their presence materially enhances the process.

1613. COORDINATION. During the development of the FAA plan to conduct proving tests, the FAA proving test team leader is responsible for coordinating all parts of the proposed tests. The applicant's representatives and crewmembers, and FAA participants, must understand and agree on which tasks must be accomplished to show compliance with regulatory requirements. The proving test team leader should notify the Regional Flight Standards Division (RFSD) of proving flight dates, times, and locations. The RFSD shall notify other RFSD's affected by the proposed proving flights and any future scheduled operations proposed by the applicant. The RFSD shall also notify AFS-510 of the proving flight schedule for Part 121 and Part 135 commuter operators. When planning proving tests, the test team should use the job aid in figure 3.9.2.1., Part 121/135 Proving and Validation Test Job Aid.

1615. PRE-DEMONSTRATION TEST MEETING (FAA TEAM). The proving test team leader shall conduct as many pre-demonstration test meetings as necessary to accomplish the following:

A. Provide Schedules and Assignments. The proving test team leader shall provide specific team members with schedules and assignments for the proving flights (including flight times, locations, inspections, and reporting requirements).

B. Evaluate the Applicant's Capabilities. The proving test team leader shall establish in-flight and ground scenarios, simulated emergencies, and other means of testing the ability of crewmembers and the applicant to cope with actual operational contingencies independently and safely. The use of such scenarios is effective when evaluating the applicant's overall and specific abilities.

(1) In-flight and Ground Scenarios. Scenarios must be clearly understood by all team members in terms of individual roles and responsibilities. The proving flight team leader, however, must ensure that the applicant is not encumbered with so many simulated scenarios that a proper evaluation of its proposed routine operation is inhibited.

(2) Emergency Scenarios. Since the primary purpose of proving flights is to ensure basic compliance with the regulations and safe operating practices during routine operations, the proving flight team leader shall not permit compound emergency scenarios to occur. When other agencies, such as air traffic control (ATC) and airport authorities, need to be involved for safety reasons, the proving flight team leader must ensure that all scenarios are well coordinated. Should an actual emergency occur, all simulated scenarios shall be terminated.

(3) Examples of Typical Scenarios. The following scenarios may be useful for evaluating the applicant's capabilities:

- Diversion to alternate airports for reasons such as weather or maintenance (This tests the company's communications, maintenance, and other operational capabilities.)
- Minimum equipment list (MEL) or configuration deviation list (CDL) situations (This tests the crewmembers' understanding of specific operational limitations and the company's operations and maintenance procedures. (For example, dispatching with a simulated inoperative generator tests the company's ability to comply with the operational and maintenance provisions of the MEL.)
- Performance problems (This requires the aircrew and dispatch, or flight control personnel, to demonstrate competency and knowledge of items, such as aircraft performance, airport analysis programs, and alternative company procedures. For example, simulating an inoperative anti-skid or

thrust reverser while operating on contaminated runways (ice, slush, or snow) tests the company's ability to deal with performance issues.)

- Security and hazardous cargo situations (This requires the aircrew and other company personnel to function in accordance with established company procedures and FAA regulations.)

NOTE: Hijack scenarios are prohibited during proving flights. Aircrew knowledge and company procedures must be examined by inspectors or security inspectors through other methods. The company's anti-hijack program shall not be exercised during proving flights.

- Situations that exercise dispatch, flight-following, or flight-locating centers (This tests communications, weather information dissemination, and other flight information distribution abilities. An effective means for testing this capability is to position an inspector who has specialized dispatch knowledge in the flight control or flight-locating facility and (at a prearranged time) to initiate a scenario such as adverse destination weather that would require a diversion. This action tests the communications and weather reporting capability of the facility and also the company's procedural contingencies as demonstrated by the flightcrew.)
- Maintenance scenarios (A maintenance problem simulated at any location that the operator operates into should be planned, however minor, to test the company's ability to communicate and resolve problems that flightcrews may experience. Maintenance scenarios should be flexible enough to accommodate any real maintenance problems that could arise during a proving flight. Examples of the many possible maintenance problems include the following: an indicator out, a minor fluid leak, or the need to determine tire wear.)
- Simulated aircraft emergencies, such as an engine failure (This tests the flightcrew's knowledge and competency in handling emergency situations. It also tests company communications, maintenance, and other operational capabilities. Under no circumstances shall an inspector require an actual engine shutdown. Typically, this situation would result in a diversion.)
- Simulated incapacitated passengers in need of immediate medical assistance
- Simulated lavatory fire
- Simulated loss of pressurization
- Simulated landing gear extension or retraction problems

1616.-1622. RESERVED.

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